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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,928	06/21/2001	Tatsuo Ozaki	4041K-000023	6210

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EXAMINER

PATEL, NIHIR B

ART UNIT PAPER NUMBER

3743

DATE MAILED: 11/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/886,928

Applicant(s)

OZAKI ET AL.

Examiner

Nihir Patel

Art Unit

3743

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. The applicant states that claims 1 through 11 have been amended but when examining the amended claims, claim 11 appears not to be amended.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4, 5, 6, 7, 8, 9, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osborn U.S. Patent No. 5,257,662 in view of Nakamura U.S. Patent No. 5,875,836.

Referring to claims 1 3, 4, 5, 6, 7, 8, 9, and 10, Osborn discloses the applicant's invention as claimed with the exception of providing a pair of header tanks having a rectangular cross section in a direction parallel to the lengthwise direction of the tubes.

Nakamura discloses a structure for attaching a fan shroud to a heat exchanger that does provide a pair of header tanks having a rectangular cross section in a direction parallel to the lengthwise direction of the tubes. Therefore it would be obvious to modify Osborn's invention by providing a pair of header tanks having a rectangular cross section in a direction parallel to the lengthwise direction of the tubes to decrease the size of the heat exchanger.

Referring to claim 12, Osborn discloses the applicant's invention as claimed with the exception of providing tubes that are connected to each of the header tanks on a shorter side wall thereof.

Nakamura discloses a structure for attaching a fan shroud to a heat exchanger that does provide tubes that are connected to each of the header tanks on a shorter side wall thereof. Therefore it would be obvious to modify Osborn's invention by providing tubes that are connected to each of the header tanks on a shorter side wall thereof to decrease the size of the heat exchanger.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Osborn U.S. Patent No. 5,257,662 in view of Case U.S. Patent No. 5,259,449.

Osborn discloses the applicant's invention as claimed with the exception of providing a header tank that comprises concave and convex portions formed on the longer side of wall of the header tank.

Case discloses a heat exchanger assembly that does provide a header tank that comprises concave and convex portions formed on the longer side of wall of the header tank. Therefore it would be obvious to modify Osborn's invention by providing a header tank that comprises concave and convex portions formed on the longer side of wall of the header tank in order to provide a stronger connection between the tubes and the header tank.

The applicant also states that the concave and convex portions on the longer side wall of the header tank are formed by plastic deformation this is method of making and is given no weight on the apparatus.

***Conclusion***

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Nihir Patel whose telephone number is (703) 306-3463. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful the examiner supervisor Henry Bennett can be reached at (703) 308-0101.

NP  
October 30, 2002

  
Henry Bennett  
Supervisory Patent Examiner  
Group 3700